

REMARKS/ARGUMENTS

No new matter has been added.

The Office Action mailed May 1, 2006, has been received and reviewed. Claims 1-15 are currently pending in the application. Claims 1-15 stand rejected. Applicants have amended claims 1, 5, 7 and 12-15, and respectfully request reconsideration of the application as amended herein.

Claim Rejections under 35 U.S.C. § 102

Claims 1-15 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,542,490 B1 to Ahmadvand et al (hereinafter “Ahmadvand”). Applicants respectfully traverse this rejection, as hereinafter set forth.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. § 2131 (Aug. 2001) (*quoting Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Id.* (*quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1051, 1053 (Fed. Cir. 1987)). In addition, “the reference must be enabling and describe the applicant’s invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention.” *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Applicants submit that the Ahmadvand reference does not and cannot anticipate under 35 U.S.C. § 102 the presently claimed invention of (i) independent claim 1 and claims 2-4 and 11 depending therefrom, (ii) independent claim 5 and claim 6 depending therefrom, (iii) independent claim 7 and claims 8-10 depending therefrom, and (iv) independent claims 12-15, because the Ahmadvand reference does not describe, either expressly or inherently, the identical inventions in as complete detail as are contained in the claims.

Claims 1, 12 and 14

The Office Action alleges:

Regarding to claims 1, 12, and 14, Ahmadvand discloses an apparatus 100 for framing packets in wireless transmission system (fig. 1), the apparatus comprising means 71 for ***generating a portion of an Internet Protocol (IP) packet 45*** for transmission (fig. 3-4 col. 7 lines 12-13), the portion of internet protocol (IP) packet is of one type (col. 7 lines 11-17; the IP packet is one of QoS type); means 73 for appending a start of frame indicator 75 to the portion of the IP packet 45 (fig. 3-4 col. 7 lines 52-55); means 73 for applying an error checking 16b mechanism to the portion of the IP packet 45 (fig. 3-4 col. 8 lines 1-3); means 73 for preparing a frame 74 for transmission, having the start of frame indicator 75, the portion of the IP packet 46, and the error checking mechanism 16b (fig. 3-4 col. 7 lines 60-65); and means 73 for ***transmitting the frame 77 without protocol information (fig. 3-4 col. 8 lines 3-5; noted transmitting the frame without the control field read on transmitting the frame without the protocol information)***. (Office Action, pp. 2-3; emphasis added).

Applicants respectfully disagree that the Ahmadvand reference anticipates Applicants' invention as claimed in independent claims 1, 12 and 14 which read:

1. A method for framing packets in a wireless transmission system supporting broadcast transmissions, the method comprising:

generating a portion of an Internet Protocol (IP) packet for transmission;
appending a start of frame indicator to the portion of the IP packet;
applying an error checking mechanism to ***the portion of the IP packet not including a protocol field to identify a payload type;***
preparing a frame for transmission, having the start of frame indicator, the portion of the IP packet, and the error checking mechanism; and
transmitting the frame without the protocol field. (Emphasis added).

12. An apparatus for framing packets in a wireless transmission system supporting broadcast transmissions, the apparatus comprising:

means for ***generating a portion of an Internet Protocol (IP) packet*** for transmission;
means for appending a start of frame indicator to the portion of the IP packet;
means for applying an error checking mechanism to the portion of the IP packet;

means for preparing a frame for transmission, having the start of frame indicator, *the portion of the IP packet* and the error checking mechanism and *not including a protocol field to identify a payload type*; and
means for *transmitting the frame without the protocol field*. (Emphasis added).

14. A computer program stored on a computer-readable storage unit, the computer program for framing packets in a wireless transmission system supporting broadcast transmissions, the computer program comprising:

- a first set of instructions for *generating a portion of an Internet Protocol (IP) packet* for transmission a second set of instructions for appending a start of frame indicator to the portion of the IP packet;
- a third set of instructions for applying an error checking mechanism to the portion of the IP packet;
- a fourth set of instructions for preparing a frame for transmission, having the start of frame indicator, *the portion of the IP packet* and the error checking mechanism and *not including a protocol field to identify a payload type*; and
- a fifth set of instructions for *transmitting the frame without the protocol field*. (Emphasis added).

In contrast to Applicants' invention as presently claimed, the Ahmadvand reference discloses:

- (1) utilizing *an entire IP packet* which *includes* address, control and *protocol fields* rather than Applicants' "portion of an IP packet",
- (2) augmenting the entire IP packet into an "augmented IP packet", and
- (3) *framing the entire augmented IP packet* in an HDLC-like frame which "does not use the address and control fields of the generic HDLC frames."

Specifically, the Ahmadvand reference discloses:

An IP packet [is] received by the QoS processing module 71 directly from IP block 41 of network layer 40 ... [and] [a]n optional length (LEN) indicator 47 is added to each packet 45 by the QoS processing module 71. (Ahmadvand, col. 7, lines 17-21).

The resulting packet 46 is called an "augmented IP packet" ... [and] based on the QoS classification obtained, QoS processing module 71 redirects the IP packets 45 to the proper QoS data plane. (Ahmadvand, col. 7, lines 25-29).

A start of message (SOM) bit field 75 ... [is] then added to the payload 46. A logic "1" for example in SOM bit 75 could be used to identify the start of a sequence frame 74 (Ahmadvand, col. 7, lines 52-55).

As a result, a number of smaller same Class of Service (CoS) sequence frames 74, 74', are presented ... to a Framing and Automatic Repeat Request (ARQ) module 73, 73'. (Ahmadvand, col. 7, lines 57-60).

The sequence frames are then encapsulated in High-level Data Link Control (HDLC)-like frames 77, 77', in a respective Framing and ARQ module 73, 73'. (Ahmadvand, col. 7, lines 63-65).

A 16 bit Frame Check Sequence (FCS) is included for error detection and is used for ARQ protocols. The HDLC-like framing applied here does not use the address and control fields of the generic HDLC frames. (Ahmadvand, col. 8, lines 1-5).

Clearly, the Ahmadvand reference discloses framing of a payload using less than all of the fields such as not using "address and control fields", however, **the reduction of the fields as disclosed in the Ahmadvand reference is performed on the framing of the entire or augmented IP packet.** Therefore, since the Ahmadvand reference does not disclose "*generating a portion of an Internet Protocol (IP) packet*", "*the portion of the IP packet ... not including a protocol field to identify a payload type*" and "*transmitting the frame without the protocol field*" as claimed by Applicants in amended independent claims 1, 12 and 14, the Ahmadvand reference **cannot** anticipate under 35 U.S.C. § 102 Applicants' inventions as presently claimed.

Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

Claim 5

The Office Action alleges:

Regarding to claim 5, Ahmadvand discloses a communication signal transmitted via a carrier wave, comprising a payload portion 46 corresponding to at least *a portion of an Internet Protocol (IP) packet 45* of digital information (fig. 4 col. 7 lines 12-13); a start of frame portion 75 corresponding to the payload portion, and identifying a status of the payload to the portion within an IP packet 45 (fig. 4 col. 7 lines 52-55); an error checking portion 16b for verifying the payload portion (fig. 4 col. 8 lines 1-3). (Office Action, p. 3; emphasis added).

Applicants respectfully disagree that the Ahmadvand reference anticipates Applicants' invention as claimed in independent claim 5 which reads:

5. A communication signal transmitted via a carrier wave, comprising:
a payload portion corresponding to *a portion of an Internet Protocol (IP) packet* of digital information and *not including a protocol field to identify a payload type*;
a start of frame portion corresponding to the payload portion, and identifying a status of the payload portion within an IP packet; and
an error checking portion for verifying the payload portion. (Emphasis added).

Applicants herein sustain the above-proffered arguments, namely, the Ahmadvand reference discloses:

- (1) utilizing *an entire IP packet* rather than Applicants' "portion of an IP packet",
- (2) augmenting the entire IP packet into an "augmented IP packet", and
- (3) *framing the entire augmented IP packet* in an HDLC-like frame which "does not use the address and control fields of the generic HDLC frames."

Clearly, the Ahmadvand reference discloses framing of a payload using less than all of the fields such as not using "address and control fields", however, **the reduction of the fields as disclosed in the Ahmadvand reference is performed on the framing of the entire or augmented IP packet**. Therefore, since the Ahmadvand reference does not disclose "*a portion of an Internet Protocol (IP) packet ... not including a protocol field to identify a payload type*" as claimed by Applicants in amended independent claim 5, the Ahmadvand reference **cannot** anticipate under 35 U.S.C. § 102 Applicants' inventions as presently claimed.

Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

Claims 7, 13 and 15

The Office Action alleges:

Regarding to claims 7, 13, and 15, Ahmadvand discloses an apparatus 100 for framing packets in wireless transmission system (fig. 1), the apparatus comprising means 73 for receiving a frame 77 of a packet transmission, the portion of the frame is of one type (col. 7 lines 57-60; the frame is one of CoS type), the frame 77 having a start of frame portion 75, a payload portion.46, and error checking portion 16b, **the frame 77 not including protocol information (fig. 3-4 col. 8 lines 1-5; noted the frame 77 does not include the control field, and thus read on the frame without the protocol information)**; means 73 for identifying the frame 77 as a start frame 75 in the packet transmission (fig. 3-4 col. 7 lines 52-55); means 73 for verifying the frame 77 using the error checking portion 16b of the frame 77 (fig. 3-4 col. 8 lines 1-3); means 71 for processing the payload portion 46 of the frame 77 (fig. 3-4 col. 7 lines 12-13). (Office Action, p. 3; emphasis added).

Applicants respectfully disagree that the Ahmadvand reference anticipates Applicants' invention as claimed in independent claims 7, 13 and 15 which read:

7. A method for receiving framed packets in a wireless transmission system supporting broadcast transmissions, the method comprising:

receiving a frame of a packet transmission wherein **the frame contains a payload portion of an Internet Protocol (IP) packet and does not include a protocol field to identify a payload type**, the frame having a start of frame portion, a payload portion, and an error check portion, **the frame not including the protocol field**;

identifying the frame as a start frame in the packet transmission;
verifying the frame using the error check portion of the frame; and
processing the payload portion of the frame. (Emphasis added).

13. An apparatus for receiving framed packets in a wireless transmission system supporting broadcast transmissions, the apparatus comprising:

means for receiving a frame of a packet transmission wherein **the frame contains a payload portion of an Internet Protocol (IP) packet and does not include a protocol field to identify a payload type**, the frame having a start of frame portion, a payload portion, and an error check portion, **the frame not including the protocol field**;

means for identifying the frame as a start frame in the packet transmission;
means for verifying the frame using the error check portion of the frame; and
means for processing the payload portion of the frame. (Emphasis added).

15. An computer program stored on a computer-readable storage unit, the computer program for receiving framed packets in a wireless transmission system supporting broadcast transmissions, the computer program comprising:

- a first set of instructions for receiving a frame of a packet transmission wherein ***the frame contains a payload portion of an Internet Protocol (IP) packet and does not include a protocol field to identify a payload type***; the frame having a start of frame portion, a payload portion, and an error check portion, ***the frame not including the protocol field***;
- a second set of instructions for identifying the frame as a start frame in the packet transmission;
- a third set of instructions for verifying the frame using the error check portion of the frame; and
- a fourth set of instructions for processing the payload portion of the frame. (Emphasis added).

Applicants herein sustain the above-proffered arguments, namely, the Ahmadvand reference discloses:

- (1) utilizing ***an entire IP packet*** rather than Applicants' "portion of an IP packet",
- (2) augmenting the entire IP packet into an "augmented IP packet", and
- (3) ***framing the entire augmented IP packet*** in an HDLC-like frame which "does not use the address and control fields of the generic HDLC frames."

Clearly, the Ahmadvand reference discloses framing of a payload using less than all of the fields such as not using "address and control fields", however, **the reduction of the fields as disclosed in the Ahmadvand reference is performed on the framing of the entire or augmented IP packet**. Therefore, since the Ahmadvand reference does not disclose "***the frame contains a payload portion of an Internet Protocol (IP) packet and does not include a protocol field to identify a payload type***" and "***the frame not including the protocol field***" as claimed by Applicants in amended independent claims 7, 13 and 15, the Ahmadvand reference **cannot** anticipate under 35 U.S.C. § 102 Applicants' inventions as presently claimed.

Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

Claims 2-4 and 11

Claims 2-4 and 11 are allowable as depending from allowable independent claim 1.

Claim 6

Claim 6 is allowable as depending from allowable independent claim 5.

Claims 8-10

Claims 8-10 are allowable as depending from allowable independent claim 7.

CONCLUSION

Claims 1-15 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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